

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/533,706	ROMER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Rip A. Lee	1713	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to December 13, 2006.
2. ☒ The allowed claim(s) is/are 1-8.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |                                                                                                            |                                                                                        |
|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)                                           | 5. <input type="checkbox"/> Notice of Informal Patent Application                      |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|                                                                                                            | 9. <input type="checkbox"/> Other _____.                                               |

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

Claim 1, line 14      delete the comma after "aminosilane"

Claim 1, line 17      replace "of" with "or"

***Allowable Subject Matter***

The following is an examiner's statement of reasons for allowance: Claims 1-8 are allowed over the closest references cited below.

The present invention is drawn to a catalyst composition comprising a transition metal complex corresponding to the formula  $L_tMX_pX'_q$ , an activator compound, and a group 13 metal compound corresponding to the formula (1)  $R^1M(N(R^b)_2)_2$  or (2)  $R^c_2M-R^d-N(R^b)-MR^c_2$  (see claims for full structural details). Another aspect of the invention is a process for polymerization of addition polymerizable monomer(s) in the presence of a catalyst system comprising said catalyst composition.

Rosen *et al.* (U.S. 6,017,842) teaches a use of a catalyst comprising a metallocene complex, activator, and a group 13 compound containing two hydrocarbyl groups and one dihydrocarbylamido group of general formula  $R^a_2MNR^b_2$ . Clearly, the compounds disclosed in Rosen *et al.* do not meet the structural features set forth in the instant claims, and with no suggestion or motivation offered in the reference, it would have been obvious to one having ordinary skill in the art to modify the main group compound disclosed in Rosen *et al.* in order to arrive at the compound recited in the instant claims.

Renkema *et al.* (WO 96/15161) discloses a catalyst comprising a transition metal compound and a compound of formula  $R-Al(X)_v(NR^1R^2)_w$ . It may be argued that the broad description of  $R-Al(X)_v(NR^1R^2)_w$  includes compounds recited in instant claims (in the case where  $v = 0$ ), however, there is no specific disclosure of compounds of the type  $R^aM(NR^b_2)_2$ . The working examples of Renkema *et al.* disclose only a vague synthetic process for making the compound  $Et_{1.5}AlCl(NR^1R^2)_{0.5}$ , which does not meet the structural requisites of the instant claims. Furthermore, there is no disclosure of use of transition metal complexes having formula  $L_tMX_pX'_q$ , as delineated in the instant claims. From the working example, in which  $VOCl_3$  is used, it would have been obvious to one having ordinary skill in the art to arrive at the notion of using instant compounds  $L_tMX_pX'_q$ . Moreover, the catalysts do not contain suitable activator, as required in the instant claims. Therefore, it is concluded that the subject matter of the instant claims is not disclosed or suggested in Renkema *et al.*

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None of the cited references teaches or fairly suggests a catalyst comprising a group 13 compound having general formula (2).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (571)272-1104. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (571)272-1114. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <<http://pair-direct.uspto.gov>>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

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February 23, 2007



DAVID W. WU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700